

Wednesday, March 27, 2024
Time of Issue: 0745 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems and Forecast & Warnings:

- ❖ A cyclonic circulation lies over northeast Assam & neighbourhood and a trough in westerlies runs roughly along Long. 93°E to the north of Lat. 23°N in lower tropospheric levels. Under the influence of these systems:
 - ✓ Scattered to fairly widespread light to moderate rainfall with isolated **thunderstorms & lightning** very likely over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Sub-Himalayan West Bengal & Sikkim during 27th-31st March, 2024.
 - ✓ **Isolated heavy rainfall/snowfall very likely over Arunachal Pradesh and isolated heavy rainfall over Assam & Meghalaya on 30th & 31st March, 2024. Isolated very heavy rainfall also likely over Assam & Meghalaya on 31st March, 2024.**
 - ✓ Isolated light to moderate rainfall with **thunderstorms & lightning** very likely over Gangetic West Bengal during 28th-31st March, 2024.
 - ✓ Isolated light to moderate rainfall very likely over Bihar 27th, 30th & 31st and over Jharkhand & Odisha on 30th & 31st March, 2024.
- ❖ A Western Disturbance as a trough in mid & upper tropospheric westerlies runs roughly along Long. 52°E to the north of Lat. 25°N. Another fresh Western Disturbance likely to affect Western Himalayan Region from 29th March, 2024. Under their influence:
 - ✓ Scattered to fairly widespread light rainfall/snowfall with isolated **thunderstorms & lightning** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh during 27th-31st and over Uttarakhand during 28th-31st March, 2024.
 - ✓ Isolated **hailstorm** also very likely over Jammu-Kashmir on 27th; over Himachal Pradesh on 28th & 29th and over Uttarakhand during 29th-31st March, 2024.
 - ✓ Isolated light rainfall with isolated **thunderstorms & lightning** very likely over Punjab, Haryana, and West Uttar Pradesh during 28th-31st; Rajasthan during 29th-31st and East Uttar Pradesh on 30th & 31st March, 2024.

Maximum temperature forecast for next 5 days:

- ❖ The maximum temperatures are in the range 40-42°C at some places over Vidarbha and at isolated pockets over Gujarat state, Marathwada and Northeast Madhya Maharashtra east Madhya Pradesh, West Rajasthan, Rayalaseema and North Interior Karnataka which are above normal by 3-4 degree Celsius, in the range 36-39°C over most part of interior peninsular India, remaining part of Maharashtra and Gujarat, outside Konkan & Goa, Coastal Karnataka, coastal Tamil Nadu, coastal areas of Andhra Pradesh and north Odisha which are above normal by 1-2°C and in the range 32-35°C over states in the Indo-Gangetic plains covering Punjab, Haryana Chandigarh, Delhi, Uttar Pradesh, Bihar, Jharkhand and Gangetic West Bengal which are below normal by 1-2°C.
- ❖ Currently, the maximum temperatures are exceeding 95th percentile of climatological value at few pockets of Marathwada adjoining Vidarbha, isolated pockets over Madhya Maharashtra, south interior Karnataka adjoining north Kerala, Gujarat state, West Rajasthan south coastal Tamilnadu and Madhya Pradesh. These are likely to continue to exceed 95th percentile of climatological value over extended areas of Rajasthan, Madhya Pradesh, Maharashtra, interior Odisha, interior Karnataka and Kerala & Mahe on 27th & 28th March.
- ❖ No significant change in maximum temperatures very likely over East India during next 2 days and gradual rise by 2-3°C thereafter.
- ❖ Rise in maximum temperatures by 2-4°C very likely over Central India during next 2 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures very likely over rest part of the country during next 5 days.
- ❖ **Hot and humid weather** very likely to prevail over Rayalaseema, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe during 27th-31st March, 2024.
- ❖ **Warm night** very likely at isolated places over Marathwada and south Madhya Maharashtra on 27th & 28th March, 2024.

Main Weather Observations:

- ❖ **Rainfall/snowfall distribution** (from 0830 to 1730 hours IST of yesterday): at many places over Arunachal Pradesh; at isolated places over Sikkim.
- ❖ **Rainfall distribution** (from 0830 to 1730 hours IST of yesterday): at most places over Assam & Meghalaya; at a few places over Nagaland, Manipur, Mizoram & Tripura; at isolated places over Jharkhand and West Bengal.
- ❖ **Significant amount of rainfall** (from 0830 to 1730 hours IST of yesterday) (≥ 1 cm): **Arunachal Pradesh:** Pasighat-1, **Assam & Meghalaya:** Shillong, North Lakhimpur & Majbat- 1 each.
- ❖ **Minimum Temperature Departures (as on 26-03-2024):** Minimum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over Madhya Maharashtra; **above normal (1.6°C to 3.0°C)** at many places over West Rajasthan; at a few places over Himachal Pradesh, Uttarakhand, Punjab and Konkan & Goa; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Assam & Meghalaya, Uttar Pradesh, East Rajasthan, Gujarat Region, Bihar, Odisha, Marathwada, Telangana and North Interior Karnataka. These were **below normal (-1.6°C to -3.0°C)** at isolated places over West Madhya Pradesh, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature of 13.1°C** was reported at **Ludhiana (Punjab)** over the plains of the country.
- ❖ **Maximum Temperature Departures (as on 26-03-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at a few places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan; **above normal (1.6°C to 3.0°C)** at most places over East Rajasthan, Haryana-Chandigarh-Delhi; at many places over Punjab, Himachal Pradesh, Uttarakhand, West Madhya Pradesh, Gujarat state and Madhya Maharashtra; at a few places over West Uttar Pradesh, Vidarbha and Marathwada; at isolated places over East Uttar Pradesh, East Madhya Pradesh, North Interior Karnataka, Coastal Karnataka, Konkan & Goa and Tamil Nadu, Puducherry & Karaikal. These were **appreciably below normal (-3.1°C to -5.0°C)** at many places over Arunachal Pradesh; at a few places over Assam & Meghalaya; **below normal (-1.6°C to -3.0°C)** at isolated places over Bihar, Jharkhand, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura and **near normal** over rest parts of the country. Yesterday, **the highest maximum temperature of 41.6°C** was reported at **Bhuj (Saurashtra & Kutch)** over the country.

Meteorological Analysis (Based on 0530 hours IST)

- ❖ The Western Disturbance as a trough in mid & upper tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 52°E to the north of Lat. 25°N.
- ❖ The cyclonic circulation over northeast Assam & neighbourhood at 1.5 km above mean sea level persists.
- ❖ The trough/wind discontinuity from North Interior Karnataka to east Vidarbha extending upto 1.5 km above mean sea level persists.
- ❖ The trough in westerlies at 3.1 km above mean sea level roughly along Long. 93°E to the north of Lat. 23°N persists.
- ❖ A fresh Western Disturbance is likely to affect Western Himalayan Region from 29th March, 2024.

Weather Forecast for next 7 days (Upto 0830 hours IST of 03rd April, 2024)

- ❖ Meteorological sub-division wise detailed 7 days rainfall forecast is given in Table-1.
- ❖ No significant change in maximum temperatures very likely over East India during next 2 days and gradual rise by 2-3°C thereafter.
- ❖ Rise in maximum temperatures by 2-4°C very likely over Central India during next 2 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures very likely over rest part of the country during next 5 days.

weather Outlook for subsequent 3 days (During 03rd-05th April, 2024)

- ❖ Scattered to fairly widespread light to moderate rainfall/snowfall likely over Northeast India and Isolated light rainfall/snowfall over Western Himalayan Region.
- ❖ Isolated light rainfall likely over Kerala & Mahe and Tamil Nadu.
- ❖ Dry weather likely to prevail over rest parts of the country.

Table-1

7 Days Rainfall Forecast

S. No.	Subdivision	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	01-Apr	02-Apr
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	ISOL	ISOL	ISOL	SCT	SCT	ISOL	DRY
2	ARUNACHAL PRADESH	WS	SCT	SCT	SCT	FWS	FWS	FWS
3	ASSAM & MEGHALAYA	ISOL	SCT	ISOL	FWS	FWS	FWS	FWS
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	ISOL	SCT	SCT	SCT	SCT	SCT	FWS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	SCT	SCT	SCT	FWS	SCT	SCT	ISOL
6	GANGETIC WEST BENGAL	DRY	ISOL	ISOL	ISOL	ISOL	ISOL	DRY
7	ODISHA	DRY	DRY	DRY	ISOL	ISOL	DRY	DRY
8	JHARKHAND	DRY	DRY	DRY	ISOL	ISOL	DRY	DRY
9	BIHAR	ISOL	DRY	DRY	ISOL	ISOL	DRY	DRY
10	EAST UTTAR PRADESH	DRY	DRY	DRY	ISOL	ISOL	DRY	DRY
11	WEST UTTAR PRADESH	ISOL	ISOL	ISOL	ISOL	DRY	DRY	DRY
12	UTTARAKHAND	ISOL	SCT	FWS	FWS	ISOL	ISOL	DRY
13	HARYANA CHANDIGARH & DELHI	ISOL	ISOL	ISOL	ISOL	DRY	DRY	DRY
14	PUNJAB	ISOL	ISOL	ISOL	ISOL	ISOL	DRY	DRY
15	HIMACHAL PRADESH	SCT	FWS	FWS	WS	FWS	ISOL	DRY
16	JAMMU & KASHMIR AND LADAKH	WS	WS	FWS	WS	FWS	ISOL	ISOL
17	WEST RAJASTHAN	DRY	DRY	ISOL	ISOL	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	ISOL	ISOL	DRY	DRY	DRY
19	WEST MADHYA PRADESH	DRY	DRY	DRY	ISOL	DRY	DRY	DRY
20	EAST MADHYA PRADESH	DRY	DRY	DRY	ISOL	ISOL	DRY	DRY
21	GUJARAT REGION	DRY	DRY	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	DRY	DRY	DRY	ISOL	DRY	DRY	DRY
25	MARATHAWADA	DRY	DRY	DRY	ISOL	DRY	DRY	DRY
26	VIDARBHA	DRY	DRY	DRY	DRY	ISOL	DRY	DRY
27	CHHATTISGARH	DRY	DRY	DRY	ISOL	DRY	DRY	DRY
28	COASTAL ANDHRA PRADESH & YANAM	DRY	DRY	DRY	DRY	DRY	DRY	DRY
29	TELANGANA	DRY	DRY	DRY	ISOL	ISOL	ISOL	DRY
30	RAYALASEEMA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
31	TAMILNADU PUDUCHERRY & KARAIKAL	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	DRY	DRY	DRY	ISOL	ISOL	ISOL	DRY
33	NORTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
34	SOUTH INTERIOR KARNATAKA	DRY	DRY	DRY	ISOL	ISOL	ISOL	DRY
35	KERALA & MAHE	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
36	LAKSHADWEEP	DRY	DRY	DRY	DRY	DRY	DRY	DRY

Legend	Category	% Stations
WS	Widespread/Most Places	76-100
FWS	Fairly Widespread/Many Places	51-75
SCT	Scattered/ A Few Places	26-50
ISOL	Isolated Places	1-25
DRY	No Rain	0

* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.
For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599
(Service to the Nation since 1875)

Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

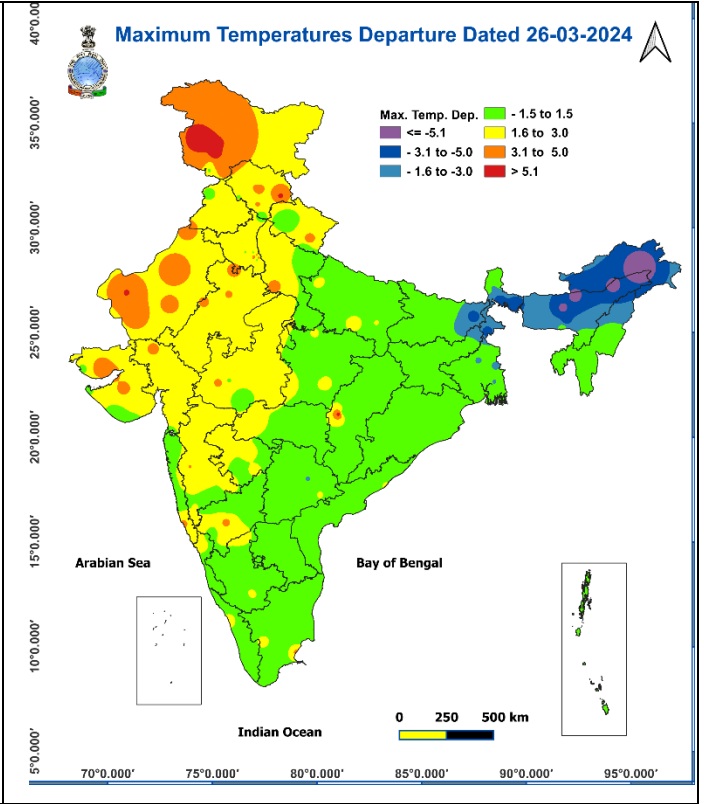
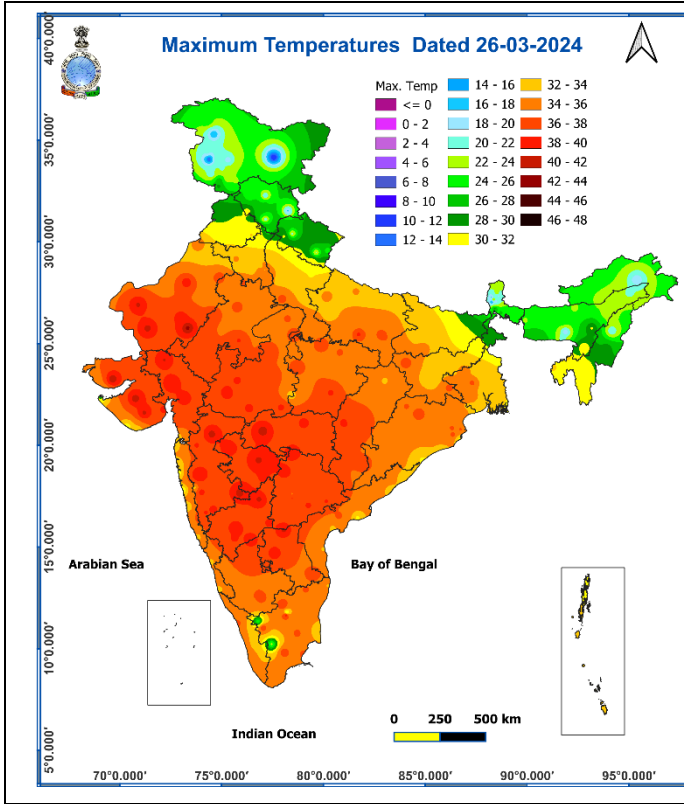


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

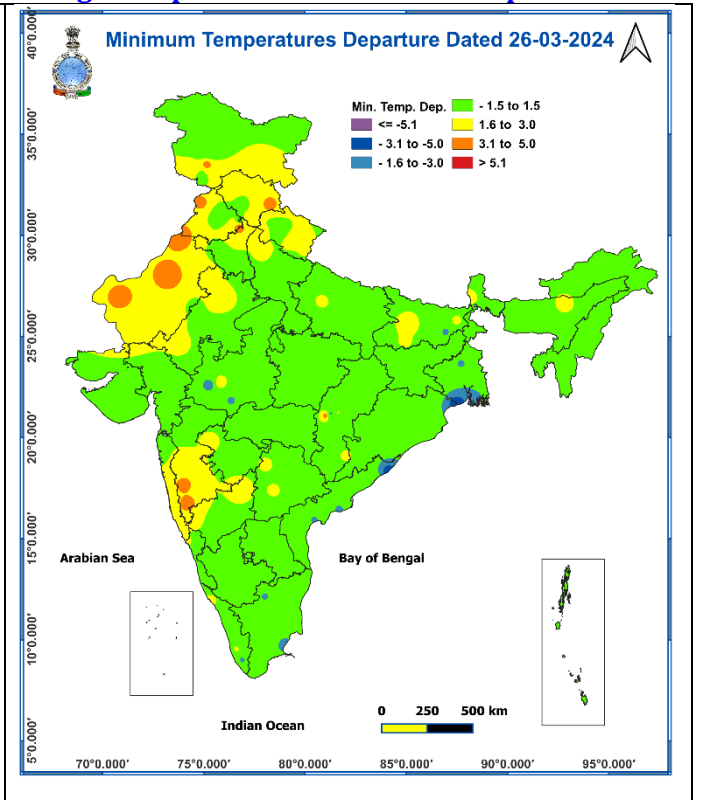
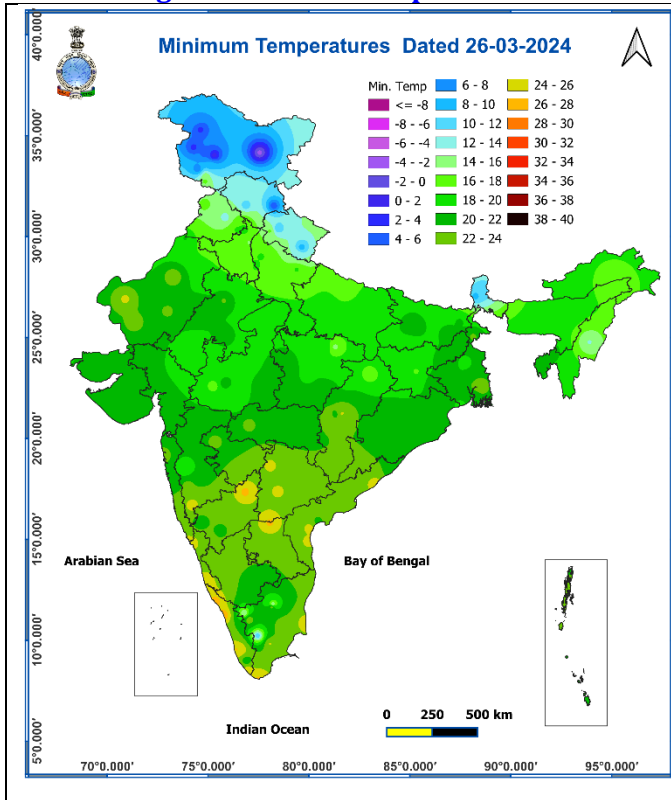
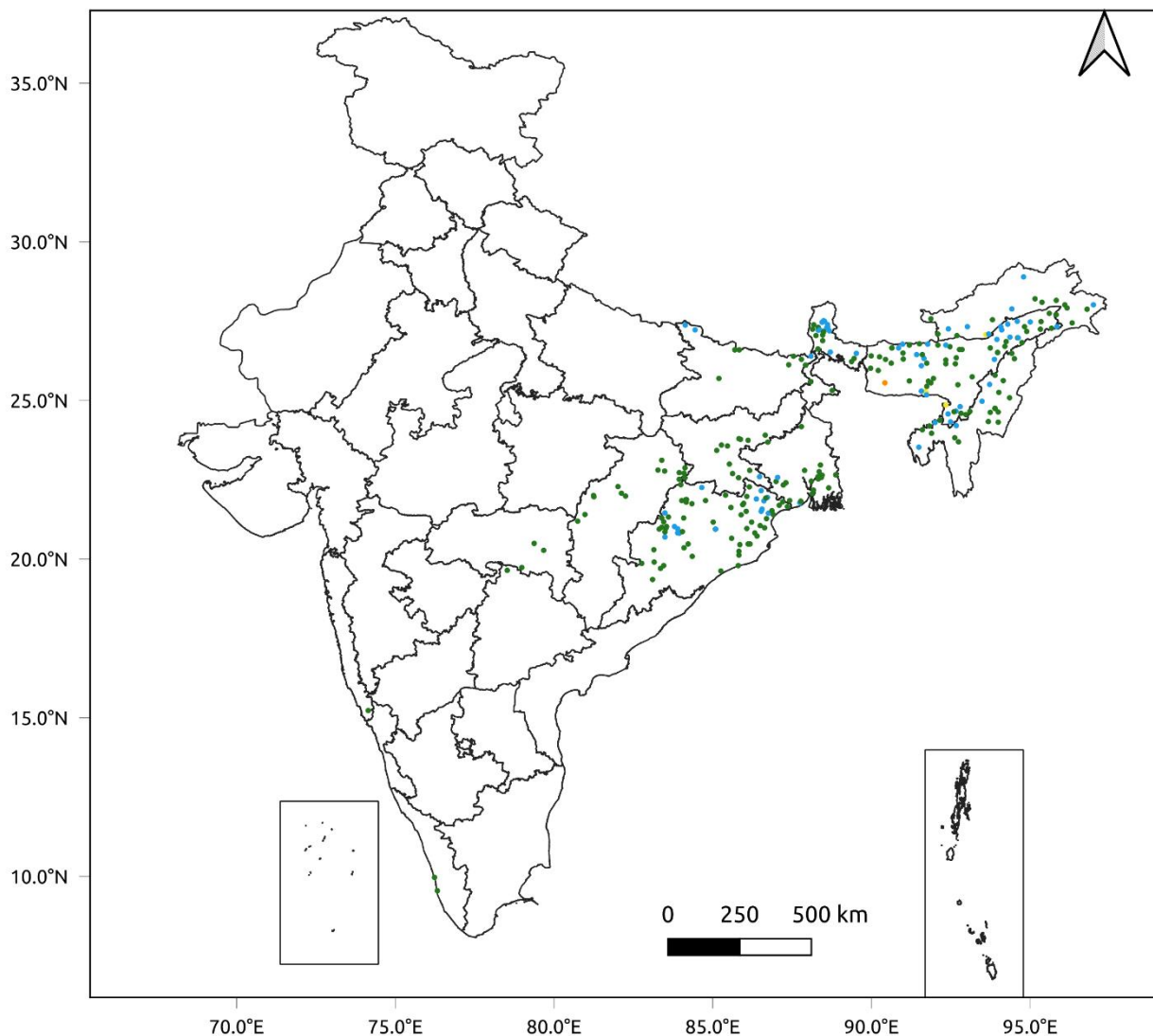


Fig. 5: Accumulated Rainfall (mm) during past 24 hours

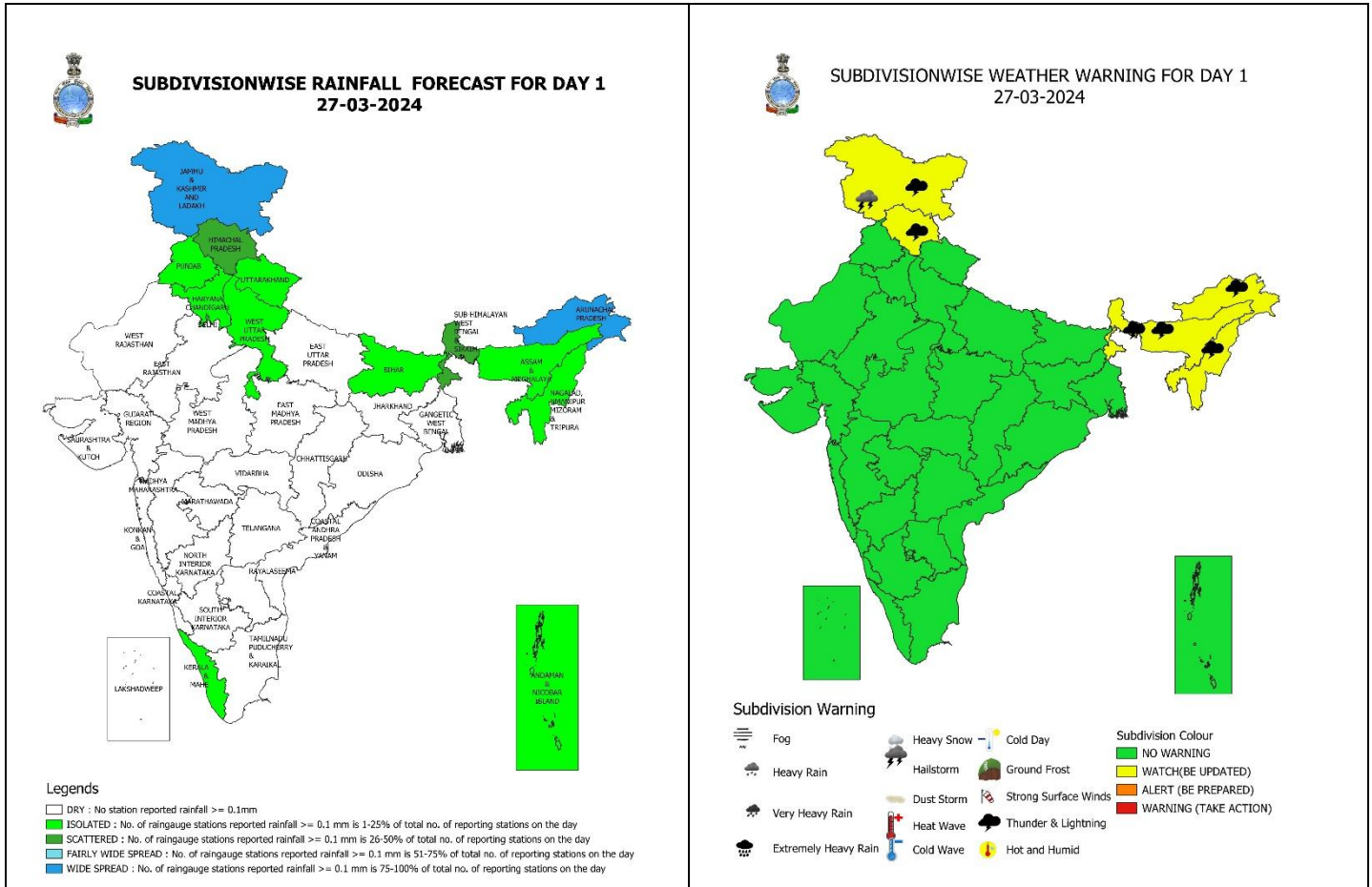


24 Hr cumulative rainfall recorded over different stations during 0830 IST of 25-3-2024 to 0830 IST of 26-3-2024



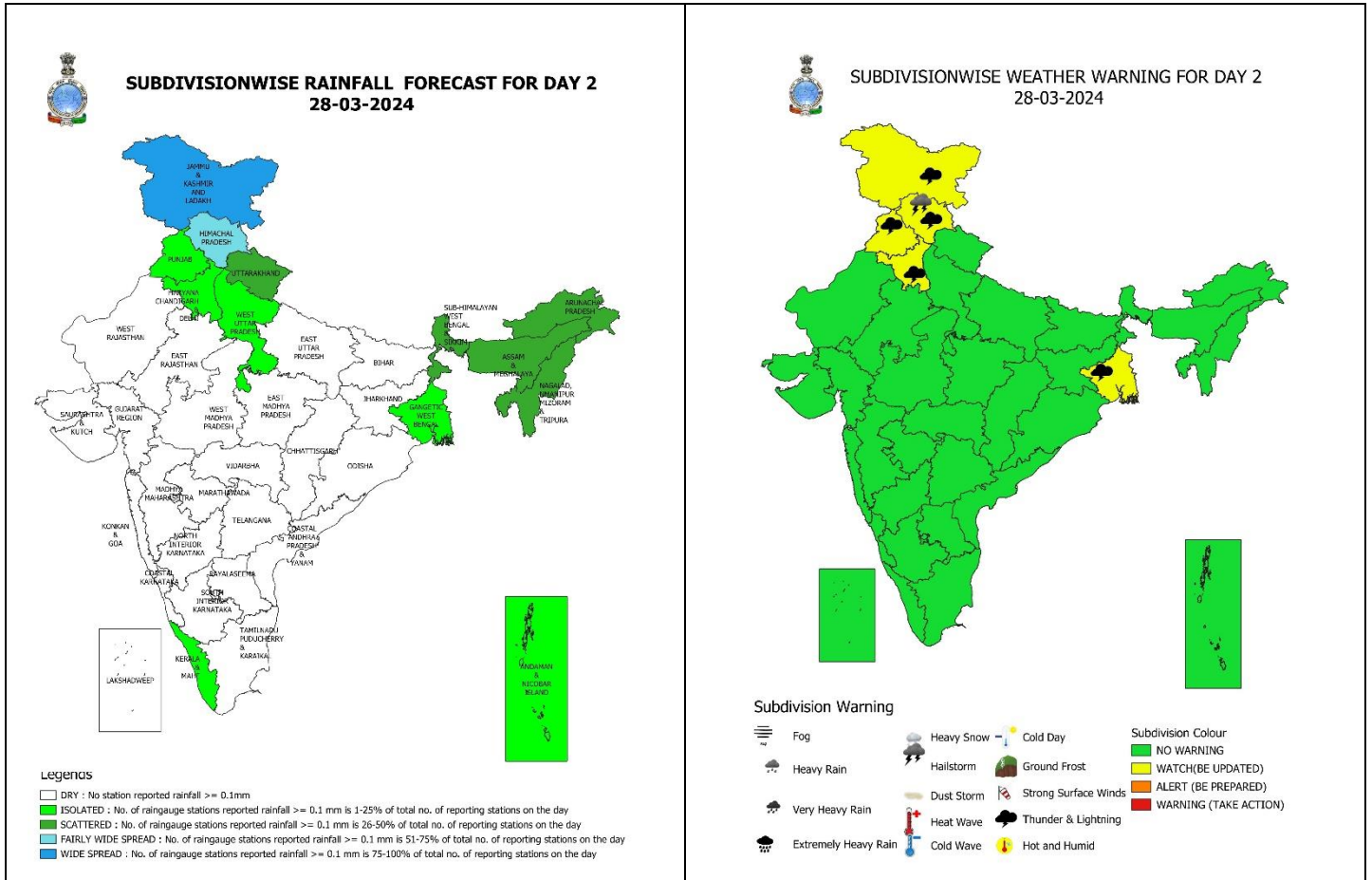
Legends

- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall (≥ 204.5 mm)



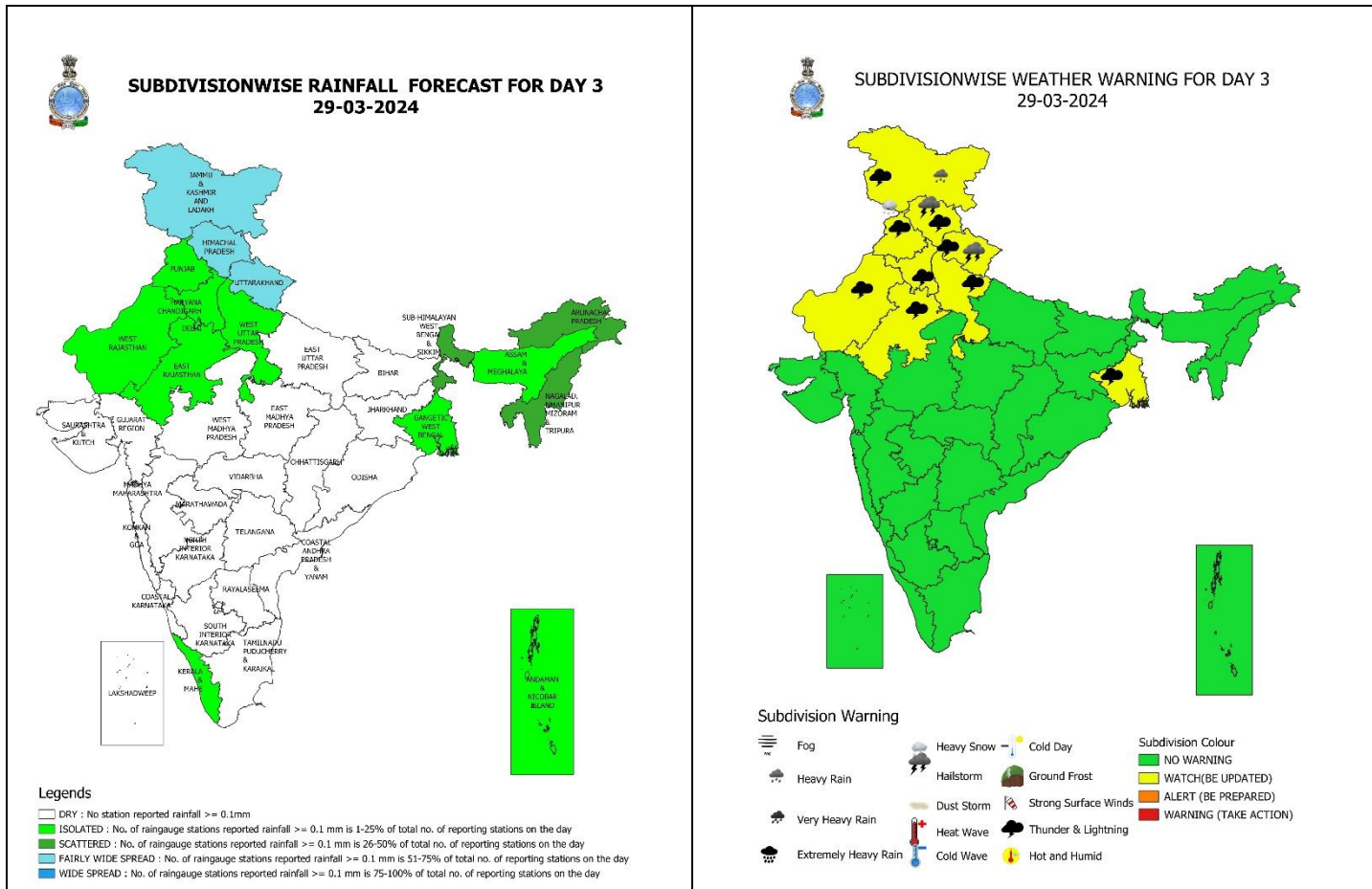
27 March (Day 1):

❖ **Thunderstorm accompanied with lightning & hailstorm** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **with lightning** at isolated places over Himachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.



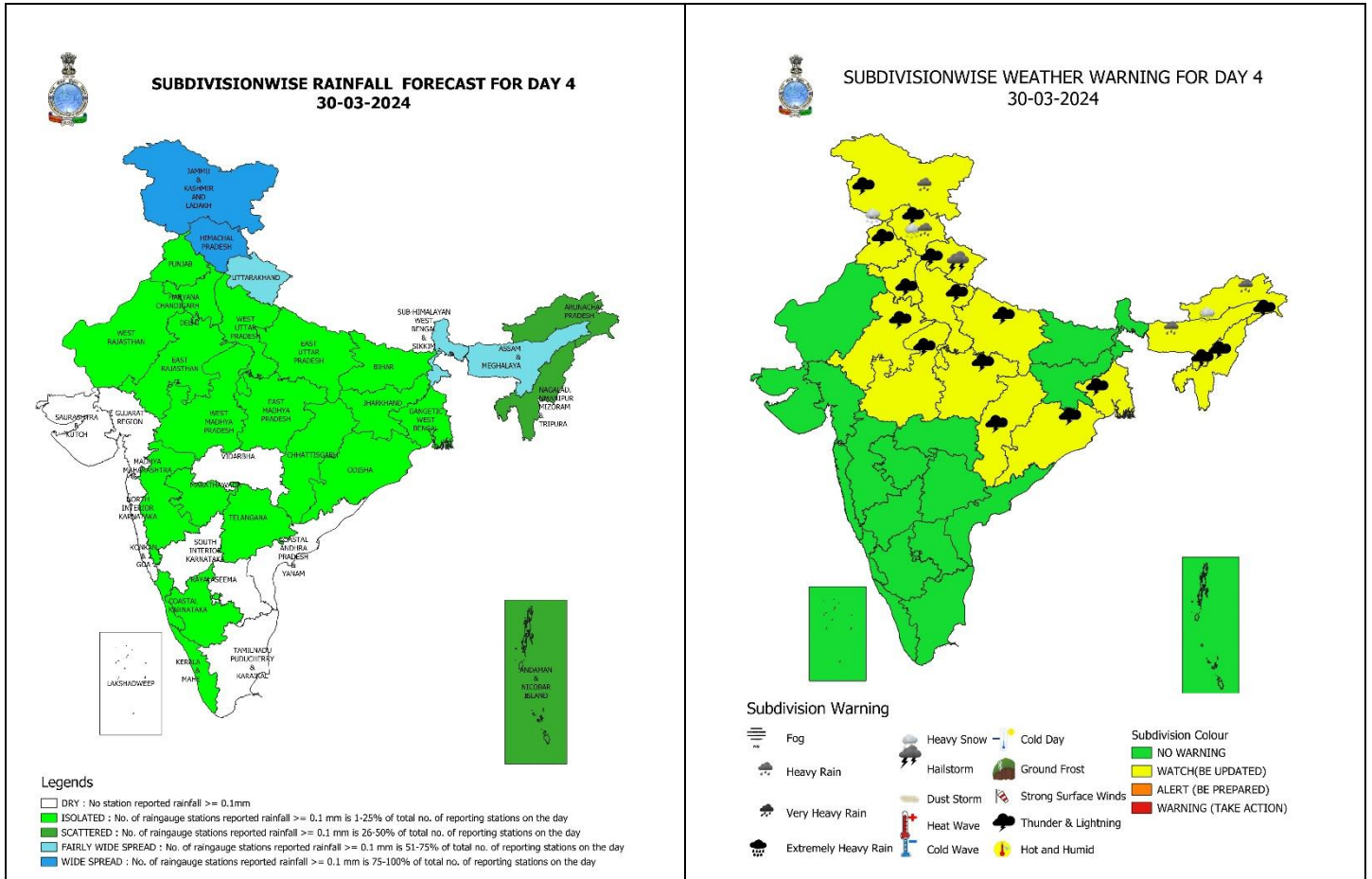
28 March (Day 2):

❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30-40 kmph) & hailstorm** very likely at isolated places over Himachal Pradesh; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over at isolated places over Punjab, Gangetic West Bengal; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Haryana and Chandigarh.



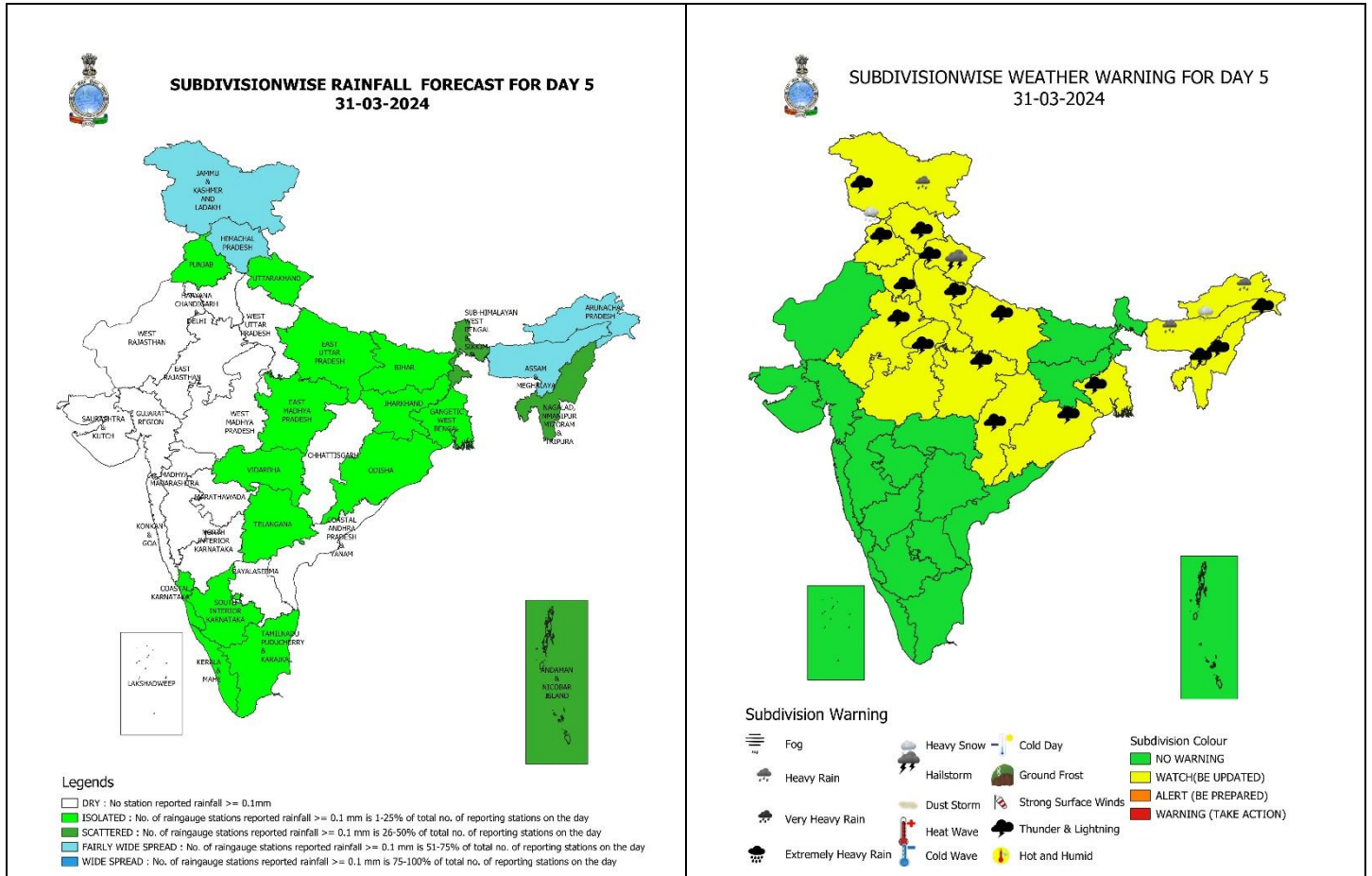
29 March (Day 3):

- ❖ **Thunderstorm accompanied with lightning, gusty winds (speed reaching 30-40 kmph) & hailstorm** very likely at isolated places over Himachal Pradesh; **with lightning & hailstorm** at isolated places over Uttarakhand; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Punjab, Haryana, Chandigarh, West Uttar Pradesh, Gangetic West Bengal; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Rajasthan.
- ❖ **Heavy rainfall/snowfall** very likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad.



30 March (Day 4):

- ❖ **Thunderstorm accompanied with lightning & hailstorm** likely at isolated places over Uttarakhand; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Himachal Pradesh, Punjab, Haryana, Chandigarh, Uttar Pradesh, Gangetic West Bengal; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, East Rajasthan, Madhya Pradesh, Chhattisgarh, Odisha, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heavy rainfall/snowfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Arunachal Pradesh; **Heavy rainfall** at isolated places over Assam & Meghalaya.

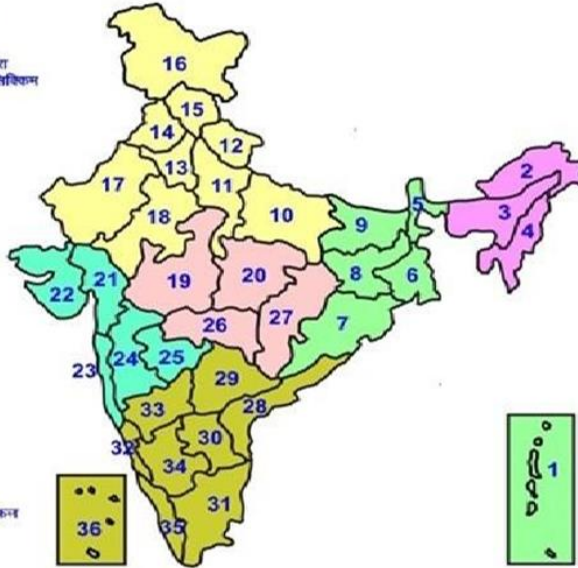


31 March (Day 5):

- ❖ **Thunderstorm accompanied with lightning & hailstorm** likely at isolated places over Uttarakhand; **with lightning & gusty winds (speed reaching 30-40 kmph)** at isolated places over Himachal Pradesh, Punjab, Haryana, Chandigarh, Uttar Pradesh, Gangetic West Bengal; **with lightning** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, East Rajasthan, Madhya Pradesh, Chhattisgarh, Odisha, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- ❖ **Heavy to very heavy rainfall** likely at isolated places over Assam & Meghalaya. **Heavy rainfall/snowfall** likely at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Arunachal Pradesh.

LEGENDS

- 1 अंडमन और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड, मणिपुर, मीज़ोरम और त्रिपुरा
- 5 उप-हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा, चंडीगढ़ एवं दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर एवं लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सौराष्ट्र एवं कच्छ
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठवाड़ा
- 26 विदर्भ
- 27 उत्तरीसमूह
- 28 तटीय आंध्र प्रदेश एवं यानम
- 29 तेलंगाना
- 30 दक्षिणतटीय
- 31 पश्चिमनाडु, पुदुचेरी एवं कराईकल
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक दक्षिणी कर्नाटक
- 35 केरल एवं माहे
- 36 लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Odisha
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathwada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. Lakshadweep

SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)

Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

LEGENDS

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)

Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75



Rain/ Snow *
Heavy: 64.5 to 115.5 mm/cm *
Very Heavy: 115.6 to 204.4 mm/cm*
Extremely Heavy: > 204.4 mm/cm *



Heat Wave
When maximum temperature of a station reaches $\geq 40^\circ\text{C}$ for plains and $\geq 30^\circ\text{C}$ for hilly regions
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C .
Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^\circ\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature $\geq 45^\circ\text{C}$.
Severe Heat Wave: When actual maximum temperature $\geq 47^\circ\text{C}$

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is $> 4.5^\circ\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^\circ\text{C}$



Warm Night
When maximum temperature remains 40°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°C .
Severe Warm Night: When minimum temperature departure $> 6.4^\circ\text{C}$.



Cold Wave
When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions.
(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C .
Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^\circ\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave : When Minimum Temperature is $\leq 4.0^\circ\text{C}$
Severe Cold Wave: When Minimum Temperature is $\leq 2.0^\circ\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is $\leq -4.5^\circ\text{C}$ & actual Minimum Temperature is $\leq 15^\circ\text{C}$



Cold Day
When minimum temperature of a station $\leq 10^\circ\text{C}$ for plains and $\leq 0^\circ\text{C}$ for hilly regions
Based on departure

Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C .
Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^\circ\text{C}$



Fog
Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres
Dense Fog: when the visibility between 50- 200 metres
Very Dense Fog: when the visibility < 50 metres



Thunderstorm
Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)



Dust/Sand Storm
An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.



Frost
Ice deposits on ground

Air temperature $\leq 4^\circ\text{C}$ (over Plains)



Squall
A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph
Severe: Wind speed 62-87 kmph
Very Severe: Wind speed > 87 kmph



Sea State
Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre
High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre
Phenomenal: Wind speed > 117 kmph (> 63 knots) & Wave height > 14 metre



Cyclone
Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)

Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)
Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)
Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)
Super Cyclone Strom: Wind speed > 220 kmph (> 119 knots)